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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------------|------------------|
| 10/757,858 | 01/15/2004 | Richard O. Glasson | CPI 13 | 4614 |
| 26345 | 7590 | 01/27/2006 | | |
| GIBBONS, DEL DEO, DOLAN, GRIFFINGER & VECCHIONE 1 RIVERFRONT PLAZA NEWARK, NJ 07102-5497 | | | EXAMINER LAZO, THOMAS E | |
| | | | ART UNIT 3745 | PAPER NUMBER |
| DATE MAILED: 01/27/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/757,858 | Applicant(s) GLASSON, RICHARD O. | |
| | Examiner Thomas E. Lazo | Art Unit 3745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8-11,14,20-27 and 29-37 is/are rejected.
- 7) ☒ Claim(s) 3,7,12,13,15-19,28 and 38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Response to Amendment

Applicant's amendment filed 12/5/05 is acknowledged.

Response to Arguments

Applicant's arguments, see page 8, lines 16-18, filed 12/5/05, with respect to the rejection(s) of claim(s) 1, 20 and 29 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Wain et al. (6,768,321)

Claim Objections

Claim 11 is objected to because of the following informalities:

Claim 11 should be canceled since it is a duplicate of claim 10. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-6, 8, 14, 20-24, 26, 27, 29, 30, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Wain et al. (6,768,321). Wain et al. discloses a position sensor with a

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frame, a spool 8 rotatably mounted to the frame, a feed point opening in the frame located in close proximity to the spool 8, a cable 11 passing through the feed point and windable about the spool 8 and having a distal end adapted to be affixed to an object to be sensed, wherein the spool 8 rotates as the cable 11 winds and unwinds in relation to movement of the object, the spool 8 is operable to travel along a substantially linear path in response to the rotational movement of the spool 8, a sensing means 14 is adapted to sense the position of the spool 8 along its substantially linear path, the sensing means includes a Hall-effect transducer 14 operably disposed to a target magnet 16 movable in cooperation with the movement of the spool 8, the spool 8 travels along a linear path parallel to the rotational axis of the spool 8, the spool 8 has a threaded engagement with the frame to cause the linear travel of the spool 8 as the spool 8 rotates, the spool 8 has a threaded extension 9 that is threadedly engaged with a threaded opening in the frame, the pitch of the threaded engagement causes the spool 8 to travel a distance along its linear path about the width of the cable 11 for each 360 degrees of rotation of the spool 8, a recoil spring 10 biases the rotational movement of the spool 8 to cause the cable 11 to wind up on the spool, the sensing means further includes a magnet in moveable cooperation with the rotating spool and adapted to translate linearly proximate the Hall effect sensor such that the Hall effect sensor provides a position related signal relative to a position of the magnet.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wain et al., as applied to claims 1 and 29 above, in view of Glasson 6,234,061. Wain et al. discloses all of the claimed subject matter except for a backlash mechanism to prevent backlash within the threaded engagement between the threaded extension and the frame, wherein the backlash mechanism includes a spring adapted to create a constant bias on the threaded extension to force the threaded extension against the threaded opening in the frame to prevent backlash therebetween,

Glasson teaches for teaches for a position sensor with a frame and a spool and that there is a backlash mechanism 312 to prevent backlash within the threaded engagement between the threaded extension and the frame, wherein the backlash mechanism includes a spring 312 adapted to create a constant bias on the threaded extension to force the threaded extension against the threaded opening in the frame to prevent backlash therebetween

Since Wain et al. and Glasson are both position sensors with a frame and a spool, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the frame of Wain et al, based on the teachings of Glasson, to include a backlash mechanism to prevent backlash within the threaded engagement between the threaded extension and the frame, wherein the backlash mechanism includes a spring adapted to create a constant bias on the threaded extension to force the threaded extension against the threaded opening in the frame to prevent backlash therebetween

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Claims 31 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wain et al., as applied to claims 1 and 29 above, in view of Motz 6,825,709. Wain et al. discloses all of the claimed subject matter except for temperature compensating a signal provided by the sensor.

Motz teaches for a sensor and that there is a temperature compensation of the signal provided by the sensor for the purposes of compensating for manufacturing and temperature fluctuations. See Motz col. 2, lines 3-7.

Since Wain et al. and Motz both involve Hall effect sensors, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the Hall effect sensor of Wain et al., based on the teachings of Motz, to include temperature compensating a signal provided by the sensor for the purposes of compensating for manufacturing and temperature fluctuations.

Claims 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wain et al., as applied to claims 1 and 29 above, in view of Hager et al. (3,834,345). Wain et al. discloses all of the claimed subject matter except for an adjustment mechanism to adjust and offset between the Hall effect sensor and the magnet.

Hager et al. teaches for a Hall effect sensor and that there is an adjustment mechanism to adjust and offset between the Hall effect sensor and the magnet for the purposes of more accurately measuring a position.

Since Wain et al. and Hager et al. both involve Hall effect sensors, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the Hall effect sensor of Wain et al., based on the teachings of Hager et al., to include an

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adjustment mechanism to adjust and offset between the Hall effect sensor and the magnet for the purposes of more accurately measuring a position.

Allowable Subject Matter

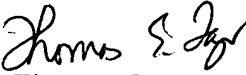
Claims 3, 7, 12, 13, 15-19, 28, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thomas E. Lazo
Primary Examiner
Art Unit 3745
January 17, 2006